

**DETAILED ACTION**

1. This communication is responsive to the amendment filed 09/02/2008 and the telephonic interview on 11/17/2008.

Claim 1 has been examined and allowed.

2. **EXAMINER'S AMENDMENT:**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dr. Louis P. Herzberg (Registration No. 41,500) on 11/17/2008.

**The application has been amended as follows:**

**In the Claims:**

**This listing of claims will replace all prior versions, and listings, of claims in the application:**

Claim 1 (Currently Amended) A provisioning method, performed by a computer system,  
for automatically provisioning and managing resources in a computing utility, the method  
comprising provisioning at least one computing environment in [[a]] the computing  
utility, said step of provisioning comprising:

employing a description of each of said at least one computing environment, said  
description directing an invocation of a first service which performs said provisioning,  
said description being a composite resource definition; and

invoking said first service to perform said provisioning,

wherein said first service is a provisioning resource service, and said method further  
comprises said first service making available a managed resource service for managing  
each of said at least one computing environment;

wherein there is at least one provisioning resource service associated with each type of  
base resource and each type of composite resource;

wherein said provisioning resource service provides a plurality of provisioning instances;

wherein said provisioning resource service is comprised of a group of provisioning

resource services, each member of said group of provisioning resource services is associated with a particular type of resource in said composite resource description;

wherein the step of invoking further comprising employing said provisioning resource service for the computing environment by recursively employing each member of said group of provisioning resource services according to said composite resource description;

wherein each said base resource has a base resource instance, and wherein there is at least one managed resource service associated with each base resource instance;

wherein there is one managed resource service for all instances of a resource type within a single computing environment;

wherein said composite resource has a composite resource instance, and wherein there is at least one managed resource service associated with each composite resource instance;

wherein said managed resource service is comprised of a group of managed resource services, each member of said group of managed resource services is associated with a particular instance of resource in said composite resource description;

wherein the step of invoking comprises:

obtaining at least one plan to satisfy said at least one computing environment;

selecting a particular plan;

requesting base resources corresponding to said particular plan from said computing utility;

repeating the steps of selecting and requesting until said base resources corresponding to said particular plan is obtained; and

configuring said base resources into an instance of said computing environment;

transforming reservations for said base resources into allocated base resources;  
and

iterating the steps of repeating and transforming until said base resources are obtained;

wherein said base resources satisfy a request criterion taken from a group of request criteria comprising:

a designated time at which resources will be provisioned;

duration of resource availability;

resource-specific selection criteria; and

any combination of these request criteria,

wherein the step of obtaining said at least one plan comprises recursively obtaining at least one plan for each sub-resource, and combining the result;

wherein the step of configuring said base resources into an instance of said computing environment comprises recursively configuring base resources corresponding to each sub-resource, and configuring the result;

wherein the step of obtaining further comprises specifying at least one condition restricting plans obtained;

wherein the step of obtaining is repeated according to a repetition criterion taken from a group of repetition criteria comprising: changes in the description of the at least one computing environment, changes in a set of base resource types, changes in a set of composite resource types; and any combination of these repetition criteria;

wherein the steps of selecting and requesting are repeated according to a repetition criterion taken from a group of repetition criteria comprising: changes in the selection criteria, changes in resource availability, changes in resource reservation status, changes in said at least one plan; and any combination of these repetition criteria;

wherein the steps of obtaining, selecting, requesting, and configuring are invoked at least once by a particular managed resource service to add resources to said computing environment; and

wherein the step of selecting said plan satisfies a selection criterion taken from a group of selection criteria comprising: cost, performance; and number of preferences satisfied; and any combination of these selection criteria.

2. - 51. (Canceled)

**3. REASONS FOR ALLOWANCE:**

Claim 1 is allowed.

The following is an examiner's statement of reasons for allowance:

The prior art does not expressly teach or render obvious the invention as recited in independent claim 1.

The features as recited in independent claim 1 “*the step of invoking comprises: obtaining at least one plan to satisfy said at least one computing environment; selecting a particular plan; requesting base resources corresponding to said particular plan from said computing utility; repeating the steps of selecting and requesting until said base resources corresponding to said particular plan is obtained; and configuring said base resources into an instance of said computing environment; transforming reservations for said base resources into allocated base resources; and iterating the steps of repeating and transforming until said base resources are obtained; wherein the step of obtaining is repeated according to a repetition criterion taken from a group of repetition criteria comprising: changes in the description of the at least one computing environment, changes in a set of base resource types, changes in a set of composite resource types; and any combination of these repetition criteria; wherein the steps of selecting and requesting are repeated according to a repetition criterion taken from a group of repetition criteria comprising: changes in the selection criteria, changes in resource availability, changes in resource reservation status, changes in said at least one plan; and any combination of these repetition criteria; and wherein the steps of obtaining, selecting, requesting, and configuring are invoked at least once by a particular managed resource service to add*

*resources to said computing environment*", when taken in the context of the claims as a whole, were not uncovered in the prior art teachings.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MENG-AI AN can be reached at (571) 272-3756.

The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VAN H NGUYEN/  
Primary Examiner, Art Unit 2194